We claim:

1. An optical disc writer for writing data on a blank optical disc comprising:

a controller receiving data to be recorded on the blank disc and generating two corresponding streams of data;

a first write head receiving one stream of data; and

a second write head receiving the other stream of data;

said write heads writing said data on the first and second sides of a disc respectively without reversing the direction of rotation of the disc.

2. The optical disc writer of claim 1 wherein said write heads write said data on the respective sides of the disc simultaneously.

3. The optical disc writer of claim 1 wherein the write heads write data on each side in two layers,

4. The optical disc writer of claim 1 wherein the controller analyzes the data and arranges the data streams to synchronize data segments of one stream with data segments of the other stream and the write heads write data segments at respective portions of the blank disc.

5. The optical disc writer of claim 4 wherein the controller synchronizes the segments such that related segments are written to corresponding portions of the two sides of the disc.

6. The optical disc writer of claim 5 wherein the corresponding portions are disposed at substantially similar radial distances from the disc hub.

7. The optical disc writer of claim 4 wherein corresponding portions of the disc are rotated at the same speed during playing of the disc.

8. An optical disc writer for writing data on an optical disc having first and second sides, said optical disc writer comprising:

a first write head;

a second write head, said first and second write heads being disposed adjacent said first and second sides, respectively; and

a controller receiving data and generating in response first and second data streams fed to said first and said second write heads, respectively;

wherein said first write head writes said first data stream on said first side and said second write head writes said second data stream on said second side.

9. The optical disc writer of claim 8 wherein said first and second write heads write the respective data streams substantially sequentially.

10. The optical disc writer of claim 9 wherein said disc is rotated in a single direction while said first and second data streams are written by said first and second write data heads on the respective sides.

11. The optical disc writer of claim 9 wherein said disc is rotated in a first direction as said first data stream is written by said first write head; and wherein said disc is rotated in a second direction opposite said first direction as said second data stream is written by said second write head.

12. The optical disc writer of claim 8 wherein said first and second streams are written by said first and second write heads substantially simultaneously.

13. The optical disc writer of claim 9 wherein said first data stream includes a first segment and said second data stream includes a second segment related to said first segment, and wherein the controller synchronizes the writing of said first and second data streams with said first and second segments being written on corresponding first and second zones of the disc.

14. The optical disc writer of claim 13 wherein said first and second corresponding zones move at the same linear rate when the DVD is played.

15. The optical disc writer of claim 8 further comprising read members for reading data from the disc.

16. A method of producing a double-sided optical disc comprising:

receiving data;

providing a blank optical disc with two opposite sides;

providing the data to two write heads, each write head being disposed adjacent to one of the sides of an optical disc; and

writing said data on the two sides of the optical disc with said write heads.

17. The method of claim 16 further comprising writing data on the two sides of the disc simultaneously.

18. The method of claim 16 further comprising synchronizing segments being written on one side of the disc with corresponding segments being written on the other side of the disc.

19. The method of claim 18 wherein the segments are written on respective zones, said zones having substantially the same linear velocity as the disc is rotated.

20. The method of claim 16 further comprising rotating said disc in a first direction; causing a first data stream to be written on the first side of the disc; rotating the disc in the opposite direction; and causing said second data stream to be written on the second side of the disc.

21. The method of claim 16 wherein the controller causes the write head to write data on the respective sides along two respective spirals that are mirror images

of each other.

22. The method of claim 16 wherein data is written at least on one side of the disc in multiple layers.